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| APPLICATION NO.   | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|-------------|----------------------|---------------------|------------------|
| 10/583,092  | 06/15/2006  | Norikazu Ito         | KAW 133NP           | 1275             |
| 23995 7590 08/05/2008<br>RABIN & Berdo, PC<br>1101 14TH STREET, NW<br>SUITE 500<br>WASHINGTON, DC 20005 |             |                      |                     |                  |
| EXAMINER<br>HO, ANTHONY   |             |                      |                     |                  |
| ART UNIT  |             | PAPER NUMBER         |                     |                  |
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

# Office Action Summary

**Application No.**

10/583,092

**Applicant(s)**

ITO ET AL.

**Examiner**

ANTHONY HO

**Art Unit**

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-7 is/are pending in the application.
- 4a) Of the above claim(s) 5-7 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

### **DETAILED ACTION**

This is in response to amendment to application no. 10/583,092 filed on June 12, 2008.

Claims 1-7 are presented for examination.

Claims 5-7 stand withdrawn.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over Kunisato et al (US Patent 5,990,496).

In re claims 1 and 2, Kunisato et al discloses a semiconductor light emitting device comprising: a semiconductor lamination portion formed by laminating at least an n-type layer and a p-type layer made of gallium nitride based compound semiconductor so as to form a light emitting portion; a light transmitting conductive layer (60) formed on a surface of the semiconductor lamination portion; an upper electrode (61) formed so as

to be in contact with an exposed surface of the semiconductor lamination portion exposed by removing a part of the light transmitting conductive layer, and to be in contact with the light transmitting conductive layer on a periphery of the part removed; and an electric current blocking portion (*the removed portion of the light transmitting conductive layer 60*) formed on the exposed surface of the semiconductor lamination portion, wherein the upper electrode is adhered to the electric current blocking portion of the surface of the semiconductor lamination portion (Figure 5; column 10 – column 11).

The recitation “the electric current blocking portion preventing electric current from flowing into a part of the semiconductor lamination portion under the upper electrode through the electric current blocking portion” in the claim is functional language and is treated as nonlimiting since it has been held that in device claims, the device must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997) The absence of a disclosure in a prior art reference relating to function did not defeat the Board’s finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference. See MPEP 2114.

Furthermore, the recitation “the electric current blocking portion preventing electric current from flowing into a part of the semiconductor lamination portion under the upper electrode through the electric current blocking portion” in the claim preamble specifies an intended use or field of use and is treated as nonlimiting since it has been held that in device claims, intended use must result in a structural difference between the claim invention and the prior art in order to patentably distinguish the claim invention

from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. *In re Casey*, 152 USPQ 235 (CCPA 1967); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). A claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

In re claim 4, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the recessed portion is formed with a depth of 10 to 50 nm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Claim Rejections - 35 USC § 103***

Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chang et al (US Patent 6,583,443) in view of Shakuda et al (US Patent 6,107,644). In re claims 1 and 2, Chang et al discloses a semiconductor light emitting device comprising: a light transmitting conductive layer (44) formed on a surface of the semiconductor lamination portion; an upper electrode (48B) formed so as to be in contact with an exposed surface of the semiconductor lamination portion exposed by removing a part of the light transmitting conductive layer, and to be in contact with the

light transmitting conductive layer on a periphery of the part removed; and an electric current blocking portion (*the removed portion of the light transmitting conductive layer 44*) formed on the exposed surface of the semiconductor lamination portion, wherein the upper electrode is adhered to the electric current blocking portion of the surface of the semiconductor lamination portion (Figure 4C; column 5 – column 6).

Shakuda et al discloses a semiconductor lamination portion formed by laminating at least an n-type layer and a p-type layer made of gallium nitride based compound semiconductor so as to form a light emitting portion (column 1; column 6).

The advantage is to obtain a light emitting device with improved efficiency (column 1). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the semiconductor light emitting device as taught by Chang et al with a semiconductor lamination portion formed by laminating at least an n-type layer and a p-type layer made of gallium nitride based compound semiconductor so as to form a light emitting portion as taught by Shakuda et al in order to obtain a light emitting device with improved efficiency.

The recitation “the electric current blocking portion preventing electric current from flowing into a part of the semiconductor lamination portion under the upper electrode through the electric current blocking portion” in the claim is functional language and is treated as nonlimiting since it has been held that in device claims, the device must be distinguished from the prior art in terms of structure rather than function. *In re Schreiber*, 128 F.3d 1473, 1477-78, 44 USPQ2d 1429, 1431-32 (Fed. Cir. 1997)

The absence of a disclosure in a prior art reference relating to function did not defeat

the Board's finding of anticipation of claimed apparatus because the limitations at issue were found to be inherent in the prior art reference. See MPEP 2114.

Furthermore, the recitation "the electric current blocking portion preventing electric current from flowing into a part of the semiconductor lamination portion under the upper electrode through the electric current blocking portion" in the claim preamble specifies an intended use or field of use and is treated as nonlimiting since it has been held that in device claims, intended use must result in a structural difference between the claim invention and the prior art in order to patentably distinguish the claim invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. *In re Casey*, 152 USPQ 235 (CCPA 1967); *In re Otto*, 136 USPQ 458, 459 (CCPA 1963). A claim containing a recitation with respect to the manner in which a claimed apparatus is intended to be employed does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim. *Ex parte Masham*, 2 USPQ2d 1647 (Bd. Pat. App. & Inter. 1987).

In re claim 3, Chang et al discloses a layer containing oxygen (51,61) in the semiconductor light emitting device (Figure 6; Figure 7; column).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified Figure 4C to contain layer 51 from Figure 6 or layer 61 from Figure 7 since this is within the scope of one of ordinary skill in the art.

In re claim 4, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have the recessed portion is formed with a depth of 10 to 50 nm, since it has been held that where the general conditions of a claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. *In re Aller*, 105 USPQ 233.

### ***Response to Arguments***

Applicant's arguments filed June 12, 2008 have been fully considered but they are not persuasive.

In response to applicant's argument that Kunisato et al and Chang et al do not disclose an "electric current blocking portion," examiner asserts that Kunisato et al and Chang et al do disclose an "electric current blocking portion." For example, the removed portion of the light transmitting conductive layer 60 in Kunisato et al and the removed portion of the light transmitting conductive layer 44 in Chang et al are the "electric current blocking portion." Since applicants have not specifically claimed the structure of the "electric current blocking portion," the removed portion of the light transmitting conductive layer 60 in Kunisato et al and the removed portion of the light transmitting conductive layer 44 in Chang et al are being construed as the claimed "electric current blocking portion." Thus, the claimed invention is not patentably distinct over the structures of Kunisato et al and Chang et al.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections



are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ANTHONY HO whose telephone number is (571) 270-1432. The examiner can normally be reached on M-Th: 10:30AM-9:00PM EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kenneth Parker can be reached on 571-272-2298. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2815

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/A. H./

Examiner, Art Unit 2815

/Kenneth A Parker/

Supervisory Patent Examiner, Art Unit 2815